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THE REUNION OF MEDICINE WITH PHILOSOPHY.

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THE REUNION OF MEDICINE WITH PHILOSOPHY.

Two notable addresses were delivered recently at the dedication of the Harvard Medical School—the one on the Future of the Medical Profession, by the President of the university, Charles W. Eliot, LL.D.; the other by Professor William H. Welch, of Johns Hopkins University, on the Unity of the Medical Sciences.[1] Their themes were surely cognate and complementary.

Dr. Eliot traced with masterly breadth the gradual evolution of the new medicine and the forces that underlie it; Dr. Welch illustrated with scholarly clearness that correlation of sciences upon which its development depends.

Pointing out that, until a very recent date, Medicine was occupied almost exclusively in the purely individualistic pursuit of dealing wth the sufferers from already existent disease a result of the comparative isolation of men, with a consequent localization of disease, Dr. Eliot showed how the almost annihilation of time and space through increasing rapidity and ease of transportation, and the almost instantaneous communication of happenings and ideas, had rendered possible and essential the effort to stem disease production at its source, while at the same time it facilitated its development and assisted in its transmission. The crowding of men into cities gives rise to new disease-producing agents in smoke, dirt, and noise and tends at the same time to reduce the resisting power of the individual; rapid transit carries broadcast the disease-spreading microorganisms, beating down the barriers that formerly tended toward localization and individualization. "Since, then," said Dr. Eliot, "modern society cannot help incurring new risks, it should seek new defenses. These defenses it may reasonably expect medical education to plan and public and private expenditure to provide." While, therefore, there will always be room for the individualistic physician whose aim it is to mitigate or overcome the effects of morbid processes once instituted, the new medicine will have "to deal much more extensively than in the past, with the causes of disease as it attacks society, the community, or the State, rather than the individual." This will call for a vast army of "explorers and pioneers in medical science," who "must be encouraged to press on their patient work of analyzing all the processess which accompany disease, in order that they may learn their actual sequences. Only through the knowledge of these sequences can real control over disease be certainly gained. And this work will be endless; for civilization involves constant changes in the environment of the human race."

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[1] Published in the Johns Hopkins Hospital Bullelin, October, 1906.

Another new function of the medical profession, now for the first time coming into play, calls for the modification of its former attitude of reticence. The new Medicine calls upon the medical profession to stand forth as the teachers of the public, and no longer merely of its own colleagues. Medical museums, public lectures, and other means of general enlightenment must be provided. The study of man must be broadened to embrace his relations to the animal and vegetable world. The comparative method must be employed, and it alone can be successful, as it has been successful in psychology, legislation, and religion, and, may we add, in philology which is indeed that method's own child. All this will create "an increasing need of men who have a working knowledge of several sciences which were formerly treated as distinct, and whose best representatives in medical schools labored apart, each in his own field. The most promising medical research of our day makes use of biological, chemical, and physical science combined."

Dr. Eliot did not fail to point out that "some of the greatest contributors to the progress of medicine and surgery during the past thirty years have been, not physicians, but naturalists and chemists. Pasteur was a chemist; Cohn, the teacher of Koch, a botanist; and Metschnikoff, a zoologist." This is but a return to the methods of the past ages of intellectual illumination. The Ionic school of philosophy, founded by Thales, included every branch of knowledge—morals and politics, rhetoric, mathematics, astronomy, and what used till recently to be described as natural philosophy and natural history. So also did the Italic school, of Pythagoras. And as with the schools, so was it with the individuals. In modern days, however, the range of knowledge and observation in each branch is so vast that it is not to be expected that any one man should attempt to cover the entire field; but he will, by constant reference of his results and conclusions to others equipped to scrutinize them from the viewpoints of other sciences, help in the production of a composite scientific doctrine.

Bearing on this is a passage of marked interest in Draper's *Intellectual Development of Europe*. He says: "Thus it will ever be with all human investigation. The primitive philosophical elements from whch we start are examined, first by one and then by another, each drawing his own special conclusions and deductions, and each firmly believing in the truth of his inferences. Each analyst has seen the whole subject from a particular point of view, without concerning himself with the discordances, contradictions, and incompatibilities, obvious enough when his conclusions come to be compared with those of other analysts as skillful as himself. In process of time, it must needs be that a new school of examiners will arise, who, taking the results at which their predecessors have arrived from an examination of the primary elements, will institute a secondary comparison; a comparison of results with results; a comparison of a higher order, and more likely to lead to absolute truth."

To turn now to Professor Welch's address. Right at the outset, as it seems to us, he summarizes the entire question when he says: "The severance of the historical union of medical school and university, leading to the establishment of a multitude of independent medical schools without responsible control, and usurping the right to confer the doctor's degree and the license to practise [mark the distinction], is accountable in large measure for the low position to which medical education in this country sank during the larger part of the last century, and from which it has now risen in our better schools to a height which we can contemplate with increasing satisfaction. Nor would it be difficult to show, if this were the suitable occasion, that our universities on their side have suffered from the loss of a member which has brought renown to many foreign universities, and that many of the embarrassing anomalies of our collegiate system of education are due to lack of personal contact on the part of colleges and universities with the needs of professional, especially medical, training. There is, of course, no saving grace in a merely nominal connection of medical school and university; the union, to be of mutual benefit, must be a real and vital one; ideals of the university must inspire the whole life and activities of the medical department."

But while isolation is to be eschewed, "Specialization in scientific work should not be decried; it is demanded by the necessities of the case and has been the great instrument of progress; but the further division of labor is carried, the more necessary does it become to emphasize the essential unity of purpose, and to secure coordination and cordial cooperation of allied sciences. Especially urgent is full recognition of the unity and cooperation of the clinic and the laboratory."

The keynote of the situation is, it seems to us, struck by Professor Welch in the following words: "The same phenomenon is exhibited in medicine as in all science, that the search for knowledge with exclusive reference to its practical application is generally unrewarded. The student of nature must find his satisfaction in search for the truth, and in the consciousness that he has contributed something to the fund of knowledge on which reposes man's dominion over reluctant matter and inexorable forces."

As to the evil results of lack of unity, Dr. Welch cites the famous address of Professor Allbutt[2] in the following terms: "How disastrous may be to medicine the loss of the sense of unity in all its branches has been very clearly and admirably shown by Professor Allbutt in depicting the effects which, for centuries, followed the casting off from medicine of surgery as a subject unworthy the attention of the medical faculty." Turning to that address of Professor Allbutt's, we read: "This is the truth I have tried to get home to you: That in the truncation of medicine[the lopping off of surgery from medicine]the physician lost not only nor chiefly a potent means of treatment; he lost thereby the inductive method; he lost touch with things; he deprived his brains of the cooperation of the subtlest machine in the world—the human hand." A little further on, however, occurs the following: "There exists, no doubt, the contrary danger of reducing education to the narrow ideas and stationary habits of the mere artisan. By stereotyped methods the shop master who does not see beyond his nose, may cramp the prentice, and this prentice becomes shopmaster in turn. . . . On the one side matter, gross and blockish; on the other speculation, vacuous of all touch of nature. . . . Our purpose must be to obtain the blend of craft and thought which on the one hand delivers us from a creeping empiricism, on the other from exorbitant ratiocinations. That, for the progress and advantage of knowledge, the polar activities of sense and thought should find a fair balance, is set forth judicially enough in modern philosophy and is eminent in great examples of mankind."

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[2] The Historical Relations of Medicine and Surgery, delivered at the International Congress of Arts and Science, at the St. Louis Exposition, 1904.

That scrutiny of results in one department of knowledge from the angular viewpoints of others, that "blend of craft and thought" that, basing all speculation firmly on sense-verified facts, instead of resting there shall use them as stepping stones to loftier peaks whence broader vistas shall open to the gaze—these are the functions of philosophy, lacking the control of which the observations, classifications, and deductions of science constitute but a mere craft. It was Darwin the scientist who observed, noted, classified, compared, and experimented; but the author of the *Origin of Species* was Darwin the philosopher.

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